ORIGINAL

OPEN MEETING

MEMORANDUM

TO: THE COMMISSION

FROM: Utilities Division

DATE: November 9, 2010

RE: UNS GAS, INC. – APPLICATION FOR APPROVAL TO REDESIGN ITS EFFICIENT HOME HEATING PROGRAM (DOCKET NO. G-04204A-07-0274)

In Decision No. 70180 (February 27, 2008), the Arizona Corporation Commission ("Commission") approved the UNS Gas, Inc. ("UNS Gas" or the "Company") Demand-Side Management ("DSM") Portfolio for 2008 through 2012 (the "DSM Portfolio"). Included in the DSM Portfolio is the Efficient Home Heating Program which was launched in the UNS Gas service territory on June 16, 2008.

On September 2, 2009, UNS Gas filed a Request for Approval to Redesign its Efficient Home Heating Program. On April 2, 2010, the Company filed an Amended Request for Approval to Redesign and Enhance its Efficient Home Heating Program, now called the "Existing Homes Program" (the "Program"), to ensure consistent program offerings throughout the service territories of UNS Electric, Inc. ("UNS Electric"), UNS Gas and Tucson Electric Power Company ("TEP").

In Decision No. 70376 (June 13, 2008) and Decision No. 70377 (June 13, 2008), the Commission ordered TEP and UNS Electric to "*review the energy savings from the program in order to determine whether a contractor qualification and incentive component, similar to that in place for Arizona Public Service ("APS") Residential HVAC DSM program, would help* to *ensure cost-effective energy savings.*"

As a result of such a review, UNS Gas, UNS Electric, and TEP have requested approval to expand and redesign their Residential heating, ventilation and air conditioning ("HVAC") DSM Programs. UNS Gas' expanded program proposes to provide incentives for high-efficiency HVAC equipment, home performance services, such as sealing leaky duct work, installing insulation, air sealing, and thermal air barriers in existing buildings, and includes incentives for high efficiency storage water heaters.

Upon Program approval by the Commission, UNS Gas will issue a request for proposal ("RFP") to select an implementation contractor. UNS Gas anticipates it will take two months to complete the RFP process to select and hire an implementation contractor and three months for the contractor to complete final Program operational design and launch the Program.

Program Description

Goals. The expanded Program will focus on proper sizing and quality installation of high efficiency HVAC equipment, sealing leaky duct work, and installation of thermal shell measures as well as advancing the building science skills of participating contractors leading to eventual Building Performance Institute ("BPI") certification. Total Program participation in 2010 for all measures is estimated at 470 units.

According to UNS Gas, the Program is intended to be a precursor to the launch of the statewide Arizona Home Performance Program, currently being researched by a collaborative of Arizona utilities through a grant from the U.S. Department of Energy. After design is complete, the Arizona Home Performance Program will be submitted to Environmental Protection Agency ("EPA") with a request to utilize EPA labeling as Home Performance with Energy Star.

Eligibility. Customer eligibility: Program participants must be in existing residential homes currently served by UNS Gas. Existing residential homes include single-family detached homes, town homes and other attached residential buildings with up to four units.

Contractor eligibility: According to UNS Gas, participating contractors will be rigorously screened for inclusion on a list of qualified contractors. Criteria for inclusion will include training requirements that result in successful BPI Building Analyst certification as determined by UNS Gas. BPI certification must be obtained within one year of participation in the Program, or before the statewide Arizona Home Performance with Energy Star program is launched, whichever is sooner. This phrase should be interpreted to mean that within one year of implementation of the Program, all participating contractors must be BPI certified. This gives contractors twelve months to become certified, which is meant to ease the transition. Once the twelve months has elapsed, however, all contractors, whether just joining the Program or not, will have to be BPI certified. Contractors must also be licensed, bonded and insured and maintain a good standing with the Better Business Bureau.

Measures.

- High Efficiency Furnace Incentive: Incentives for the installation of high-efficiency furnaces with Annual Fuel Utilization Efficiency ("AFUE") ratings of greater than or equal to 90%, greater than or equal to 92%, and greater than or equal to 94% for end of life replacement applications only;

- High Efficiency Storage Water Heater Incentive: Incentives for the installation of storage water heaters with a minimum Energy Factor ("EF") of 0.62;

- Air Sealing Incentive: Blower door guided whole house air sealing: a blower door test performed by a trained and certified contractor shall be required with reported air leakage numbers in cubic feet per minute at 50 Pascals pressure ("CFM-50") before air sealing measures are implemented, and CFM-50 after air sealing has been

completed. A summary showing net air leakage reduction, methods used to achieve the reduction and a Combustion Safety Test will be required to receive an incentive;

- Duct Sealing Incentive:[1] This incentive will be based on two tiers, depending on how the effectiveness of the duct-sealing is reported. Contractors will have a choice of applying for either the prescriptive or performance incentive, described below:

  - *Prescriptive Duct Sealing* requires contractors to complete a duct-sealing check-list that identifies typical high-duct-leakage locations and identify actions taken to repair/seal leaks. This approach does not require the use of diagnostic testing equipment such as a Duct Blaster. As part of quality assurance/quality control, UNS Gas will randomly sample installations to confirm contractors are complying with the prescriptive duct sealing requirements. Given the prescriptive duct sealing approach is not performance tested, the incentive for this component will be less than the performance incentive.

  - *Performance Duct Sealing:* The performance duct sealing approach is similar to the prescriptive duct sealing method, requiring a contractor check-list of work completed, however, the incentive is based on performance tested pre and post duct-sealing leakage reductions as measured in CFM-25. This performance based incentive option is available only to participating BPI certified contractors;

- Attic Insulation Incentive: Insulation improvements must increase the total attic insulation from its existing R-value (resistance to heat flow), which must be less than R-19, up to at least R-38. A blower door test must be performed by a trained and certified contractor prior to the installation of attic insulation. If the blower door test shows building air leakage is greater than 0.35 ACH (air changes per hour), then air-sealing must be completed prior to the installation of new insulation and a Combustion Safety test must be completed after air-sealing is complete.

- Education and Promotion: Education and promotional efforts designed to inform customers about the benefits of improved thermal efficiency, air sealing, duct sealing and high-efficiency space and water heating, including educational brochures, Program promotional material, and UNS Gas website content.

Incentives. Incentives for the purchase of qualifying high-efficiency equipment and/or home performance services will be paid directly to contractors, with a requirement that the customer invoice clearly shows the utility rebate and customer discount. UNS Gas believes this approach of paying the incentive directly to the contractor will assist with overall Program

[1] Customers that live in a home where duct sealing was completed during initial construction, such as Energy Star Homes, are ineligible for additional incentive dollars associated with duct sealing requirements.

promotion and contractors agreeing to abide by the new required terms and conditions, and heightened standards of professional installation that UNS Gas will be requiring.

Table 1. Proposed Incentives Schedule

Measure	Efficiency Level	Incentive	Units			
			2010	2011	2012	Program Total
High Efficiency Furnace (New/Replacement)	≥ 90 AFUE	$300	50	100	150	300
High Efficiency Furnace (New/Replacement)	≥ 92 AFUE	$450	100	250	300	650
High Efficiency Furnace (New/Replacement)	≥ 94 AFUE	$550	50	200	250	500
High Efficiency Gas Storage Water Heater	≥ 0.62 EF	$50	100	400	600	1100
Air Sealing	N/A	$250	50	100	150	300
Duct Sealing (Prescriptive)	N/A	$350	50	100	150	300
Duct Sealing (Performance)	N/A	$550	20	40	60	120
Attic Insulation & Air Sealing	N/A	$800	50	100	150	300

Delivery Strategy and Administration

UNS Gas staff will manage the Program in-house, providing overall Program management, marketing, planning and coordination of customer and contractor participation. UNG Gas will, however, utilize a third-party implementation contractor for assistance with rebate processing, data tracking, technical support and for trade ally management.

Actual delivery of efficiency services to residential customers will be done by participating trade allies. UNS Gas and the implementation contractor will work together to recruit, train, and manage trade allies to ensure optimum program performance.

UNS Gas anticipates that this program will be delivered in conjunction with its proposed Residential Energy Assessment Program ("REAP").[2] As part of the energy audit within the REAP, customers will be provided information on available incentives offered through the

[2] See Docket No. E-04204A-07-0365.

Existing Homes Program. However, participation in the REAP is not a prerequisite for taking advantage of the incentives offered through this Program.

Key Partnering relationships include:

- HVAC, insulation, and air sealing training professionals;
- Community interest groups;
- HVAC, insulation, and air sealing contractors trained in Program procedures; and
- The Arizona Energy Office and Coconino County Community College, or other industry experts to provide training, education and awareness.

Building Performance Institute Certification. UNS Gas will initially recruit local HVAC and weatherization contractors, and those with existing BPI-certified technicians and Home Energy Rating System ("HERS") certifications, encouraging them to become participating contractors. There are currently over 100 BPI-certified contractors in the state of Arizona but few of these are located in UNS Gas service territory.

BPI certification will not be required for the initial launch of the Program redesign with consumer marketing and contractor training in 2010 emphasizing the importance of BPI certification. BPI certification, or its equivalent, as a Building Analyst will, however, be required within 1 year of Program participation or prior to the launch of the Arizona Statewide Home Performance Program, whichever is sooner. Equivalent training and/or certification may include, but not be limited to, certification in air conditioner or heat pump installation by North American Technician Excellence, training provided or sponsored by Arizona Energy Office, training provided through the Air Conditioning Contractors of America, certification by HVAC Excellence or training provided or sponsored by the utility. In the interim, all installations will be completed by contractors that are certified by UNS Gas. UNS Gas will establish a list of qualified contractors and will outline requirements for inclusion on this list. A list of qualifying contractors will be posted on UNS Gas' website providing a source of qualified contractor referrals for UNS Gas customers.

To aid in the BPI certification process, UNS Gas will organize and deliver BPI certification classes and will reimburse a portion of training costs associated with certification (up to 50% of the cost) and ownership of program-required diagnostic equipment. BPI Building Analyst Certification is currently available through the Foundation for Senior Living for approximately $1,300. Program-required diagnostic equipment includes a monometer to check pressures (with a cost of about $500), a blower-door to determine air-tightness (with a cost of about $1,500), and possibly a Duct Blaster or pressure pans for determining duct tightness (with a cost of about $1,500). UNS Gas estimates that it will be able to assist approximately 20 contractors per year with BPI certification. Reimbursement will be paid after the contractor receives BPI certification and completes a minimum number of qualifying jobs, as specified by

the Program and described below. A qualifying job is the completion of installation of any Program measure.

After successful completion of the general UNS Gas Program participation class, contractors wishing to join the Program will be enrolled in a "mentor" phase. An RFP has been issued by UNS Gas, and the Company is in the process of choosing an organization that is a leading authority in energy consulting and testing and certification that will provide mentoring services, likely producing local staff that are hired specifically to work as mentors with the Program. During the "mentor" phase, the contractor will receive a ride-a-long for their first three jobs. At that time, the mentor will complete a contractor assessment to determine if the work the contractor is conducting complies with minimum Program standards. If so, the contractor will exit the mentoring phase, but the next five jobs completed will be inspected. After the completion of the first three jobs, the contractor will be reimbursed for training and equipment as described above, with those first three jobs counting as qualifying jobs. If the mentor determines that the contractor is not yet ready to start delivering services in compliance with Program guidelines, the mentor will recommend up to three more ride-a-longs, extending the number of qualifying jobs that need to be completed prior to the contractor receiving reimbursement for training and equipment. If the contractor is still not ready to deliver services in compliance with Program guidelines after these additional ride-a-longs, the contractor will be placed on hold for six months before they can reapply for participation in the Program.

Participating contractors must employ properly trained staff, and must allow inspection of work performed by the Program manager or the implementation contractor to ensure that all measures are properly installed and safety precautions are observed. Only contractor firms with BPI-certified technicians on staff may take advantage of any "performance based" incentive options, which are currently restricted to the duct sealing component of the Program.

Rebate Processing. Rebate processing will be completed by an outsourced Program implementation contractor. Rebate application forms will be available online at UNS.com. Applications must be submitted by the contractor, by mail, along with supporting documentation and proof of paid invoices for all work conducted. All applications received will go through a quality control review for completeness, accuracy and consistency of data. In cases where questions are identified, processing staff will call the customer or installation contractor for verification. Random inspections will be conducted to verify proper installation of all rebated measures.

Marketing

UNS Gas will provide Program marketing and customer awareness-building through a range of strategies including:

- Providing information on incentives as part of the REAP energy audit;

- Promotions on the UNS Gas website about the benefits of purchasing high efficiency equipment;
- Promotion through community interest groups;
- Advertising in major newspapers and other selected print media in UNS Gas service territory to raise awareness of the availability of the Program;
- Providing information through UNS Gas' customer care center;
- Developing marketing pieces including brochures and other collateral pieces to promote the benefits of qualifying equipment, air sealing and duct sealing;
- Assistance with responding to customer inquiries about the Program and how to purchase qualifying equipment; and
- Training and seminars for participating trade allies.

The advertising campaign will communicate that high-efficiency systems and home performance services will help reduce customer energy bills, provide equal or better comfort conditions, and are beneficial for the environment.

Program Budget

Due to the expanded list of Program measures, the Program budget is expected to increase as detailed below. The first-year expanded Program budget has been reduced to account for only a partial year ramp-up. The budget projection for 2011 also anticipates a partial year ramp-up as UNS Gas concentrates on more contractor recruitment and training necessary to support full program offerings.

Impacts from this program on the DSM Adjustor Clause would be reflected with the true up of the adjustor rate at the annual reset, as estimated in Table 2. Staff estimates that at full implementation, an average residential bill would increase by $2.62 per year, assuming consumption of 40 therms per month. Additionally, the expanded program budget follows the framework of the originally proposed program budget. (See Table 3.)

Table 2. Proposed Incremental Increase in Program Budget

	2010	2011	2012
Original Program Budget	$318,270	$327,818	$337,653
Expanded Program Budget	$394,191	$856,393	$1,080,767
Incremental Increase in Program Budget	$75,921	$528,575	$743,114
Incremental Increase in Expanded Program Adjustor Mechanism	$0.00056/therm	$0.00387/therm	$0.00545/therm

Table 3. Total Proposed Program Budget 2010 – 2012

	Budget		
	2010	2011	2012
Financial Incentives	$173,500	$434,500	$590,500
Program Delivery	$143,800	$259,550	$298,045
Program Marketing	$31,730	$69,405	$88,855
Utility Program Administration	$30,000	$60,000	$61,800
Measurement, Evaluation, and Research	$15,161	$32,938	$41,568
Total Incentive	$173,500	$434,500	$590,500
Total Non-Incentive	$220,691	$421,893	$490,268
TOTAL	**$394,191**	**$856,393**	**$1,080,768**

Program Participation

Total annual expected participation for each measure within the Program is shown in Table 1.

Estimated Energy Savings and Environmental Benefits

UNS Gas anticipates that after the 2010 ramp-up of the expanded Program, energy savings will significantly surpass energy savings from the original Program design.

Table 4. Projected Energy Savings 2010 – 2012

Energy Savings	2010	2011	2012	Total
Expanded Annual (therms)	83,013	142,077	199,240	424,330
Original Annual (therms)	100,432	103,444	106,548	310,424

Table 5. Projected CO2 Reductions 2010 – 2012

CO2 Reductions	2010	2011	2012	Total
Annual (Tons)	490	838	1,176	2,504
Lifetime (Tons)	8,959	15,262	21,419	45,640

Cost-Effectiveness

The Commission's 1991 Resource Planning Decision established the Societal Cost Test ("SCT") as the methodology to be used for determining the cost-effectiveness of a DSM program. Under the SCT, in order to be cost-effective, the ratio of benefits to costs must be greater than one. The societal costs for a DSM program include the cost of the measure and the cost of implementing the program, excluding rebates. The societal benefits of a DSM program include the avoided demand and energy costs as well as avoided environmental impacts, which are quantified, but do not have to be monetized.

Due to the whole-house effect of the measures included in the Existing Homes program, certain measures will result in both electric and natural gas savings. To capture the total economic benefits of these measures, Staff has included the cost savings associated with estimated kilowatt (kW) and kilowatt-hour (kWh) electric savings for relevant measures in the benefit-cost analysis. Relevant measures are those that include duct test and repair, air sealing and attic insulation. If electric cost savings were excluded, the program would have an SCT benefit-cost ratio of 0.97. If the economic benefits of estimated kW and kWh savings are included, Staff has concluded that UNS Gas' Existing Homes Program would be cost-effective, with an SCT benefit-cost ratio of 1.40. As shown in Table 6, all measures are cost-effective once electric economic benefits are included.

Table 6. Measure and Program Cost-Effectiveness

Measure		Benefit to Cost Ratio	
		Therm Savings Only	Including kW and kWh Cost Benefits
High Efficiency Furnace (New/Replacement)	≥ 90 AFUE	1.64	1.64
High Efficiency Furnace (New/Replacement)	≥ 92 AFUE	1.67	1.67
High Efficiency Furnace (New/Replacement)	≥ 94 AFUE	1.69	1.69
High Efficiency Gas Storage Water Heater	≥ 0.62 EF	1.62	1.62
Air Sealing	N/A	2.39	5.06

Duct Sealing (Prescriptive)	N/A	1.13	2.93
Duct Sealing (Performance)	N/A	1.13	2.84
Attic Insulation & Air Sealing	N/A	0.92	2.21
Program Total		**0.97**	**1.40**

As of September 1, 2010, storage water heaters must have an EF of 0.67 to earn the Energy Star label. Staff understands that UNS Gas' application for this Program was submitted prior to the change in standards. At this time, natural gas storage water heaters with an EF of 0.67 are not cost effective. However, Staff believes that, in time, the incremental cost of these high-efficiency water heaters will decrease such that they will become cost effective. Staff recommends that UNS Gas inform the Commission on the costs of water heaters with an EF greater than 0.62 in its DSM reports and determine whether modifying the program to include an incentive for these higher efficiency water heaters would be cost effective at that time. If higher efficiency water heaters become cost-effective, UNS Gas should file an application for approval of modification of its Existing Homes Programs.

Implementation Contractor(s)

Rebate Administration. UNS Gas will use a third-party implementation contractor for assistance with rebate processing, data tracking, technical support and for trade ally management.

Program training and mentoring. UNS Gas will work closely with the implementation contractor to recruit, train and manage trade allies to ensure optimum effectiveness in Program delivery. UNS Gas' implementation contractor will provide an orientation of the Program outlining Program requirements and contractors' responsibilities as well as discuss reporting and data collection procedures. The implementation contractor is also responsible for providing training and mentoring to all participating contractor(s) as part of the quality assurance process. The implementation contractor may also review documents, and may mail the homeowner a survey or perform random sampling and field inspections of work completed. The implementation contractor may also perform inspection of work performed to ensure that all measures are properly installed and safety precautions are observed.

Monitoring and Evaluation

UNS Gas will adopt a strategy that calls for integrated data collection designed to provide a quality data resource for Program tracking, management and evaluation. This approach will entail the following primary activities:

- Database management: UNS Gas will collect the necessary data elements to populate the tracking database and provide periodic reporting;

- Integrated implementation data collection: UNS Gas will establish systems to collect the data needed to support effective Program management and evaluation through the implementation and customer application processes. The database tracking system will be integrated with implementation data collection processes;

- Field verification: UNS Gas will conduct field verification of the installation of a sample of measures throughout the implementation of the Program; and

- Tracking of savings using deemed savings values: UNS Gas will develop deemed savings values for each measure and technology promoted by the Program, periodically review and revise the savings values to be consistent with Program participation, and accurately estimate the savings being achieved by the Program.

Reporting Requirements

Staff recommends that the UNS Gas DSM report should include, at a minimum, (i) the number of incentives provided per measure; (ii) copies of marketing materials; (iii) estimated cost savings to participants; (iv) gas and electric savings as determined by the monitoring and evaluation process; (v) estimated environmental savings; (vi) the total amount of the program budget spent during the previous six months, the previous year, and since inception of the program; (vii) any significant impacts on program cost-effectiveness; (viii) updated cost and cost-benefit information related to gas storage water heaters with an EF greater than 0.62; (ix) the number of contractors that were BPI-certified using program funds; (x) the total number of BPI contractors in UNS Gas service territory; and (xi) descriptions of any problems and proposed solutions including movements of funding from one program to another.

Recommendations

Staff recommends that the UNS Gas Existing Homes Program be approved.

Steven M. Olea
Director
Utilities Division

SMO:LAF:BEK:lhm\RM

ORIGINATOR: Laura A. Furrey and Barbara Keene

BEFORE THE ARIZONA CORPORATION COMMISSION

KRISTIN K. MAYES
Chairman
GARY PIERCE
Commissioner
PAUL NEWMAN
Commissioner
SANDRA D. KENNEDY
Commissioner
BOB STUMP
Commissioner

IN THE MATTER OF UNS GAS, INC.'S APPLICATION FOR APPROVAL TO REDESIGN ITS EFFICIENT HOME HEATING PROGRAM	DOCKET NO. G-04204A-07-0274 DECISION NO. _____ ORDER

Open Meeting
November 22 and 23, 2010
Phoenix, Arizona

BY THE COMMISSION:

FINDINGS OF FACT

1. UNS Gas, Inc. ("UNS Gas" or "the Company") is engaged in providing natural gas within portions of Arizona, pursuant to authority granted by the Arizona Corporation Commission ("Commission").

BACKGROUND

2. In Decision No. 70180 (February 27, 2008), the Commission approved the UNS Gas Demand-Side Management ("DSM") Portfolio for 2008 through 2012 (the "DSM Portfolio"). Included in the DSM Portfolio is the Efficient Home Heating Program which was launched in the UNS Gas service territory on June 16, 2008.

3. On September 2, 2009, UNS Gas filed a Request for Approval to Redesign its Efficient Home Heating Program. On April 2, 2010, the Company filed an Amended Request for Approval to Redesign and Enhance its Efficient Home Heating Program, now called the "Existing Homes Program" (the "Program"), to ensure consistent program offerings throughout the service

territories of UNS Electric, Inc. ("UNS Electric"), UNS Gas and Tucson Electric Power Company ("TEP").

4. In Decision No. 70376 (June 13, 2008) and Decision No. 70377 (June 13, 2008), the Commission ordered TEP and UNS Electric to "*review the energy savings from the program in order to determine whether a contractor qualification and incentive component, similar to that in place for Arizona Public Service ("APS") Residential HVAC DSM program, would help* to *ensure cost-effective energy savings.*"

5. As a result of such a review, UNS Gas, UNS Electric, and TEP have requested approval to expand and redesign their Residential heating, ventilation and air conditioning ("HVAC") DSM Programs. UNS Gas' expanded program proposes to provide incentives for high-efficiency HVAC equipment, home performance services, such as sealing leaky duct work, installing insulation, air sealing, and thermal air barriers in existing buildings, and includes incentives for high efficiency storage water heaters.

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PROGRAM DESCRIPTION

7. Goals. The expanded Program will focus on proper sizing and quality installation of high efficiency HVAC equipment, sealing leaky duct work, and installation of thermal shell measures as well as advancing the building science skills of participating contractors leading to eventual Building Performance Institute ("BPI") certification. Total Program participation in 2010 for all measures is estimated at 470 units.

8. According to UNS Gas, the Program is intended to be a precursor to the launch of the statewide Arizona Home Performance Program, currently being researched by a collaborative of Arizona utilities through a grant from the U.S. Department of Energy. After design is complete, the Arizona Home Performance Program will be submitted to Environmental Protection Agency ("EPA") with a request to utilize EPA labeling as Home Performance with Energy Star.

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10. Contractor eligibility: According to UNS Gas, participating contractors will be rigorously screened for inclusion on a list of qualified contractors. Criteria for inclusion will include training requirements that result in successful BPI Building Analyst certification as determined by UNS Gas. BPI certification must be obtained within one year of participation in the Program, or before the statewide Arizona Home Performance with Energy Star program is launched, whichever is sooner. This phrase should be interpreted to mean that within one year of implementation of the Program, all participating contractors must be BPI certified. This gives contractors twelve months to become certified, which is meant to ease the transition. Once the twelve months has elapsed, however, all contractors, whether just joining the Program or not, will have to be BPI certified. Contractors must also be licensed, bonded and insured and maintain a good standing with the Better Business Bureau.

11. Measures.

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DELIVERY STRATEGY AND ADMINISTRATION

13. UNS Gas staff will manage the Program in-house, providing overall Program management, marketing, planning and coordination of customer and contractor participation. UNG Gas will, however, utilize a third-party implementation contractor for assistance with rebate processing, data tracking, technical support and for trade ally management.

14. Actual delivery of efficiency services to residential customers will be done by participating trade allies. UNS Gas and the implementation contractor will work together to recruit, train, and manage trade allies to ensure optimum program performance.

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- The Arizona Energy Office and Coconino County Community College, or other industry experts to provide training, education and awareness.

17. Building Performance Institute Certification. UNS Gas will initially recruit local HVAC and weatherization contractors, and those with existing BPI-certified technicians and Home Energy Rating System ("HERS") certifications, encouraging them to become participating contractors. There are currently over 100 BPI-certified contractors in the state of Arizona but few of these are located in UNS Gas service territory.

18. BPI certification will not be required for the initial launch of the Program redesign with consumer marketing and contractor training in 2010 emphasizing the importance of BPI certification. BPI certification, or its equivalent, as a Building Analyst will, however, be required within one year of Program participation or prior to the launch of the Arizona Statewide Home Performance Program, whichever is sooner. Equivalent training and/or certification may include, but not be limited to, certification in air conditioner or heat pump installation by North American Technician Excellence, training provided or sponsored by Arizona Energy Office, training provided through the Air Conditioning Contractors of America, certification by HVAC Excellence or training provided or sponsored by the utility. In the interim, all installations will be completed by contractors that are certified by UNS Gas. UNS Gas will establish a list of qualified contractors and will outline requirements for inclusion on this list. A list of qualifying contractors will be posted on UNS Gas' website providing a source of qualified contractor referrals for UNS Gas customers.

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19. To aid in the BPI certification process, UNS Gas will organize and deliver BPI certification classes and will reimburse a portion of training costs associated with certification (up to 50% of the cost) and ownership of program-required diagnostic equipment. BPI Building Analyst Certification is currently available through the Foundation for Senior Living for approximately $1,300. Program-required diagnostic equipment includes a monometer to check pressures (with a cost of about $500), a blower-door to determine air-tightness (with a cost of about $1,500), and possibly a Duct Blaster or pressure pans for determining duct tightness (with a cost of about $1,500). UNS Gas estimates that it will be able to assist approximately 20 contractors per year with BPI certification. Reimbursement will be paid after the contractor receives BPI certification and completes a minimum number of qualifying jobs, as specified by the Program and described below. A qualifying job is the completion of installation of any Program measure.

20. After successful completion of the general UNS Gas Program participation class, contractors wishing to join the Program will be enrolled in a "mentor" phase. An RFP has been issued by UNS Gas, and the Company is in the process of choosing an organization that is a leading authority in energy consulting and testing and certification that will provide mentoring services, likely producing local staff that are hired specifically to work as mentors with the Program. During the "mentor" phase, the contractor will receive a ride-a-long for their first three jobs. At that time, the mentor will complete a contractor assessment to determine if the work the contractor is conducting complies with minimum Program standards. If so, the contractor will exit the mentoring phase, but the next five jobs completed will be inspected. After the completion of the first three jobs, the contractor will be reimbursed for training and equipment as described above, with those first three jobs counting as qualifying jobs. If the mentor determines that the contractor is not yet ready to start delivering services in compliance with Program guidelines, the mentor will recommend up to three more ride-a-longs, extending the number of qualifying jobs that need to be completed prior to the contractor receiving reimbursement for training and equipment. If the contractor is still not ready to deliver services in compliance with Program

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guidelines after these additional ride-a-longs, the contractor will be placed on hold for six months before they can reapply for participation in the Program.

21. Participating contractors must employ properly trained staff, and must allow inspection of work performed by the Program manager or the implementation contractor to ensure that all measures are properly installed and safety precautions are observed. Only contractor firms with BPI-certified technicians on staff may take advantage of any "performance based" incentive options, which are currently restricted to the duct sealing component of the Program.

22. Rebate Processing. Rebate processing will be completed by an outsourced Program implementation contractor. Rebate application forms will be available online at UNS.com. Applications must be submitted by the contractor, by mail, along with supporting documentation and proof of paid invoices for all work conducted. All applications received will go through a quality control review for completeness, accuracy and consistency of data. In cases where questions are identified, processing staff will call the customer or installation contractor for verification. Random inspections will be conducted to verify proper installation of all rebated measures.

MARKETING

23. UNS Gas will provide Program marketing and customer awareness-building through a range of strategies including:

- Providing information on incentives as part of the REAP energy audit;
- Promotions on the UNS Gas website about the benefits of purchasing high efficiency equipment;
- Promotion through community interest groups;
- Advertising in major newspapers and other selected print media in UNS Gas service territory to raise awareness of the availability of the Program;
- Providing information through UNS Gas' customer care center;
- Developing marketing pieces including brochures and other collateral pieces to promote the benefits of qualifying equipment, air sealing and duct sealing;

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- Assistance with responding to customer inquiries about the Program and how to purchase qualifying equipment; and
- Training and seminars for participating trade allies.

24. The advertising campaign will communicate that high-efficiency systems and home performance services will help reduce customer energy bills, provide equal or better comfort conditions, and are beneficial for the environment.

PROGRAM BUDGET

25. Due to the expanded list of Program measures, the Program budget is expected to increase as detailed below. The first-year expanded Program budget has been reduced to account for only a partial year ramp-up. The budget projection for 2011 also anticipates a partial year ramp-up as UNS Gas concentrates on more contractor recruitment and training necessary to support full program offerings.

26. Impacts from this program on the DSM Adjustor Clause would be reflected with the true up of the adjustor rate at the annual reset, as estimated in Table 2. Staff estimates that at full implementation, an average residential bill would increase by $2.62 per year, assuming consumption of 40 therms per month. Additionally, the expanded program budget follows the framework of the originally proposed program budget. (See Table 3.)

Table 2. Proposed Incremental Increase in Program Budget

	2010	2011	2012
Original Program Budget	$318,270	$327,818	$337,653
Expanded Program Budget	$394,191	$856,393	$1,080,767
Incremental Increase in Program Budget	$75,921	$528,575	$743,114
Incremental Increase in Expanded Program Adjustor Mechanism	$0.00056/therm	$0.00387/therm	$0.00545/therm

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Table 3. Total Proposed Program Budget 2010 – 2012

	Budget		
	2010	2011	2012
Financial Incentives	$173,500	$434,500	$590,500
Program Delivery	$143,800	$259,550	$298,045
Program Marketing	$31,730	$69,405	$88,855
Utility Program Administration	$30,000	$60,000	$61,800
Measurement, Evaluation, and Research	$15,161	$32,938	$41,568
Total Incentive	$173,500	$434,500	$590,500
Total Non-Incentive	$220,691	$421,893	$490,268
TOTAL	**$394,191**	**$856,393**	**$1,080,768**

PROGRAM PARTICIPATION

27. Total annual expected participation for each measure within the Program is shown in Table 1.

ESTIMATED ENERGY SAVINGS AND ENVIRONMENTAL BENEFITS

28. UNS Gas anticipates that after the 2010 ramp-up of the expanded Program, energy savings will significantly surpass energy savings from the original Program design.

Table 4. Projected Energy Savings 2010 – 2012

Energy Savings	2010	2011	2012	Total
Expanded Annual (therms)	83,013	142,077	199,240	424,330
Original Annual (therms)	100,432	103,444	106,548	310,424

Table 5. Projected CO2 Reductions 2010 – 2012

CO2 Reductions	2010	2011	2012	Total
Annual (Tons)	490	838	1,176	2,504
Lifetime (Tons)	8,959	15,262	21,419	45,640

COST-EFFECTIVENESS

29. The Commission's 1991 Resource Planning Decision established the Societal Cost Test ("SCT") as the methodology to be used for determining the cost-effectiveness of a DSM program. Under the SCT, in order to be cost-effective, the ratio of benefits to costs must be greater than one. The societal costs for a DSM program include the cost of the measure and the

cost of implementing the program, excluding rebates. The societal benefits of a DSM program include the avoided demand and energy costs as well as avoided environmental impacts, which are quantified, but do not have to be monetized.

30. Due to the whole-house effect of the measures included in the Existing Homes program, certain measures will result in both electric and natural gas savings. To capture the total economic benefits of these measures, Staff has included the cost savings associated with estimated kilowatt (kW) and kilowatt-hour (kWh) electric savings for relevant measures in the benefit-cost analysis. Relevant measures are those that include duct test and repair, air sealing and attic insulation. If electric cost savings were excluded, the program would have an SCT benefit-cost ratio of 0.97. If the economic benefits of estimated kW and kWh savings are included, Staff has concluded that UNS Gas' Existing Homes Program would be cost-effective, with an SCT benefit-cost ratio of 1.40. As shown in Table 6, all measures are cost-effective once electric economic benefits are included.

Table 6. Measure and Program Cost-Effectiveness

Measure		Benefit to Cost Ratio	
		Therm Savings Only	Including kW and kWh Cost Benefits
High Efficiency Furnace (New/Replacement)	≥ 90 AFUE	1.64	1.64
High Efficiency Furnace (New/Replacement)	≥ 92 AFUE	1.67	1.67
High Efficiency Furnace (New/Replacement)	≥ 94 AFUE	1.69	1.69
High Efficiency Gas Storage Water Heater	≥ 0.62 EF	1.62	1.62
Air Sealing	N/A	2.39	5.06
Duct Sealing (Prescriptive)	N/A	1.13	2.93
Duct Sealing (Performance)	N/A	1.13	2.84
Attic Insulation & Air Sealing	N/A	0.92	2.21
Program Total		**0.97**	**1.40**

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31. As of September 1, 2010, storage water heaters must have an EF of 0.67 to earn the Energy Star label. Staff understands that UNS Gas' application for this Program was submitted prior to the change in standards. At this time, natural gas storage water heaters with an EF of 0.67 are not cost effective. However, Staff believes that, in time, the incremental cost of these high-efficiency water heaters will decrease such that they will become cost effective. Staff recommends that UNS Gas inform the Commission on the costs of water heaters with an EF greater than 0.62 in its DSM reports and determine whether modifying the program to include an incentive for these higher efficiency water heaters would be cost effective at that time. If higher efficiency water heaters become cost-effective, UNS Gas should file an application for approval of modification of its Existing Homes Programs.

IMPLEMENTATION CONTRACTOR(S)

32. Rebate Administration. UNS Gas will use a third-party implementation contractor for assistance with rebate processing, data tracking, technical support and for trade ally management.

33. Program training and mentoring. UNS Gas will work closely with the implementation contractor to recruit, train and manage trade allies to ensure optimum effectiveness in Program delivery. UNS Gas' implementation contractor will provide an orientation of the Program outlining Program requirements and contractors' responsibilities as well as discuss reporting and data collection procedures. The implementation contractor is also responsible for providing training and mentoring to all participating contractor(s) as part of the quality assurance process. The implementation contractor may also review documents, and may mail the homeowner a survey or perform random sampling and field inspections of work completed. The implementation contractor may also perform inspection of work performed to ensure that all measures are properly installed and safety precautions are observed.

MONITORING AND EVALUATION

34. UNS Gas will adopt a strategy that calls for integrated data collection designed to provide a quality data resource for Program tracking, management and evaluation. This approach will entail the following primary activities:

- Database management: UNS Gas will collect the necessary data elements to populate the tracking database and provide periodic reporting;
- Integrated implementation data collection: UNS Gas will establish systems to collect the data needed to support effective Program management and evaluation through the implementation and customer application processes. The database tracking system will be integrated with implementation data collection processes;
- Field verification: UNS Gas will conduct field verification of the installation of a sample of measures throughout the implementation of the Program; and
- Tracking of savings using deemed savings values: UNS Gas will develop deemed savings values for each measure and technology promoted by the Program, periodically review and revise the savings values to be consistent with Program participation, and accurately estimate the savings being achieved by the Program.

REPORTING REQUIREMENTS

35. Staff has recommended that the UNS Gas DSM report should include, at a minimum, (i) the number of incentives provided per measure; (ii) copies of marketing materials; (iii) estimated cost savings to participants; (iv) gas and electric savings as determined by the monitoring and evaluation process; (v) estimated environmental savings; (vi) the total amount of the program budget spent during the previous six months, the previous year, and since inception of the program; (vii) any significant impacts on program cost-effectiveness; (viii) updated cost and cost-benefit information related to gas storage water heaters with an EF greater than 0.62; (ix) the number of contractors that were BPI-certified using program funds; (x) the total number of BPI contractors in UNS Gas service territory; and (xi) descriptions of any problems and proposed solutions including movements of funding from one program to another.

RECOMMENDATIONS

36. Staff has recommended that the UNS Gas Existing Homes Program be approved, as discussed herein.

CONCLUSIONS OF LAW

1. UNS Gas is an Arizona public service corporation within the meaning of Article XV, Section 2, of the Arizona Constitution.

2. The Commission has jurisdiction over UNS Gas and over the subject matter of the Application.

3. The Commission, having reviewed the application and Staff's Memorandum dated November 9, 2010, concludes that it is in the public interest to approve the UNS Gas Existing Homes Program, as discussed herein.

ORDER

IT IS THEREFORE ORDERED that the UNS Gas, Inc. Existing Homes Program be and hereby is approved, as discussed herein.

IT IS FURTHER ORDERED that the UNS Gas, Inc. DSM report shall include, at a minimum:

- the number of incentives provided per measure;
- copies of marketing materials;
- estimated cost savings to participants;
- gas and electric savings as determined by the monitoring and evaluation process;
- estimated environmental savings;
- the total amount of the program budget spent during the previous six months, the previous year, and since inception of the program;
- any significant impacts on program cost-effectiveness;
- updated cost and cost-benefit information related to gas storage water heaters with an EF greater than 0.62;
- the number of contractors that were BPI-certified using program funds;
- the total number of BPI contractors in UNS Gas service territory; and
- descriptions of any problems and proposed solutions including movements of funding from one program to another.

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IT IS FURTHER ORDERED that UNS Gas, Inc. shall file an application for approval to modify its Existing Homes Program when gas storage water heaters with an EF greater than 0.62 become cost-effective.

IT IS FURTHER ORDERED that this Order shall become effective immediately.

BY THE ORDER OF THE ARIZONA CORPORATION COMMISSION

CHAIRMAN COMMISSIONER

COMMISSIONER COMMISSIONER COMMISSIONER

IN WITNESS WHEREOF, I, ERNEST G. JOHNSON, Executive Director of the Arizona Corporation Commission, have hereunto, set my hand and caused the official seal of this Commission to be affixed at the Capitol, in the City of Phoenix, this _____day of _____, 2010.

_____
ERNEST G. JOHNSON
EXECUTIVE DIRECTOR

DISSENT: _____

DISSENT: _____

SMO:LAF:lhm/RM

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